

ID NO:181), wherein the purified protein is bound to a material comprising an active agent, said active agent being of value in the treatment of a mammalian disease or disorder.

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32. (Amended) A method of delivering a drug to a subject comprising administering to the subject a composition comprising a purified protein which specifically binds a gastro-intestinal tract receptor, which receptor is selected from the group consisting of HPT1 (SEQ ID NO:178), hPEPT1 (SEQ ID NO:176), D2H (SEQ ID NO:179), and hSI (SEQ ID NO:181), wherein the purified protein is bound to a material comprising an active agent of value in the treatment of a mammalian disease or disorder, and wherein said protein is covalently bound to a particle containing a drug.

33. (Amended) A method of delivering a drug to a subject comprising administering to the subject a composition comprising a purified protein which specifically binds a gastro-intestinal tract receptor, which receptor is selected from the group consisting of HPT1 (SEQ ID NO:178), hPEPT1 (SEQ ID NO:176), D2H (SEQ ID NO:179), and hSI (SEQ ID NO:181), wherein the purified protein is bound to a material comprising an active agent of value in the treatment of a mammalian disease or disorder, and wherein said protein is covalently bound to a drug.

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75. (Amended) A method of delivering a drug to a subject comprising administering to the subject a therapeutically effective amount of a pharmaceutical composition comprising a therapeutically effective amount of a nucleic acid encoding a chimeric protein comprising (i) a first protein comprising at least 6 contiguous amino acids of an amino acid sequence selected from the group consisting of SEQ ID NOS:1-55, said contiguous amino acids being capable of specifically binding to a gastro-intestinal tract receptor selected from the group consisting of HPT1 (SEQ ID NO:178), hPEPT1 (SEQ ID NO:176), D2H (SEQ ID NO:179), and hSI (SEQ ID NO:181), said first protein being fused via a covalent bond to (ii) a second protein, said second protein being a drug; and a pharmaceutically acceptable carrier.

Please add the following claims:

98. (New) The method of claim 31, in which the protein comprises an amino acid sequence selected from the group consisting of SEQ ID NOS:1-55 or a binding portion thereof.

99. (New) The method of claim 31, in which the amino acid sequence of the protein is selected from the group consisting of SEQ ID NOS:1-55, or a binding portion thereof.

100. (New) The method of claim 31, in which the protein is not more than 50 amino acids in length and includes, positioned anywhere along its sequence, the contiguous amino acid sequence of: Xaa₁ Thr Xaa₂ Xaa₃ Ser Xaa₄ Xaa₅ Xaa₆ Asn Xaa₇ Arg (SEQ ID NO:253), where Xaa₁ is Ser or Thr; Xaa₂ is Arg or Lys; Xaa₃ is Lys or Arg; Xaa₄ is Ser or Leu; Xaa₅ is Arg, Ile, Val, or Ser; Xaa₆ is Ser, Tyr, Phe, or His; and Xaa₇ is Pro, His or Arg.

101. (New) The method of claim 31, in which the protein is not more than 50 amino acids in length and includes, positioned anywhere along its sequence, the contiguous amino acid sequence of: Asp Xaa₁ Asp Xaa₂ Arg Arg Xaa₃ Xaa₄ (SEQ ID NO:254) where Xaa₁ is Ser, Ala, or Gly; Xaa₂ is Val or Gln; Xaa₃ is Pro, Gly, or Ser; and Xaa₄ is Trp or Tyr.

102. (New) The method of claim 31, in which the protein is not more than 50 amino acids in length and includes, positioned anywhere along its sequence, the contiguous amino acid sequence of: Val Arg Ser Gly Cys Gly Xaa₁ Xaa₂ Ser Ser (SEQ ID NO:255), where Xaa₁ is Ala or Phe; and Xaa₂ is Arg or His.

103. (New) The method of claim 31, in which the protein is not more than 50 amino acids in length and includes, positioned anywhere along its sequence, the contiguous amino acid sequence of: NTRKSSRSNPR (SEQ ID NO:256) or STKRSLIYNHR (SEQ ID NO:257) or STGRKVFNRR (SEQ ID NO:258) or TNAKHSSHNR (SEQ ID NO:259).